VIRGINIA LITERARY MUSEUM

AND

JOURNAL OF BELLES LETTRES, ARTS, &c.

Published every Wednesday.—Terms, five dollars per annum, to be paid in advance.

"POSCENTES VARIO MULTUM DIVERSA PALATO."—Hor. Lib. ii. Ep. 2.

No. 49.—VOL. 1. UNIVERSITY OF VIRGINIA. MAY, 19, 1830.

NATURAL LANGUAGE.

Dugald Stewart agrees with Reid in considering natural language as indispensable to the formation of artificial language, and he makes it to consist of the expressions of the countenance, gestures of the body, and tones of the voice. He argues, and as we think, very satisfactorily, that man, as well as other animals, has the instinctive faculty of interpreting these natural signs of thought and feeling; and he assigns the following reasons for his opinions.

1. A child is able at a very early period to understand the meaning of smiles and frowns, of a soothing or threatening tone of voice; long, at least, before it can be supposed capable of so much observation as to remark the connexion between a passion and its external effect.* If the interpretation of natural signs be the result of experience, whence is it that children understand their meaning, at a much earlier period than they do that of arbitrary signs? If it were merely the effect of observation, the fact would be reversed, inasmuch as it is obviously more easy to remember the sound of a word than the most simple modification of the human countenance, nor is there any thing more wonderful in this instinctive phenomenon which infants exhibit, nor perhaps so wonderful, as that instinctive terror with which nature has certainly endowed some of the brutes for the destined enemies of their respective tribes. It deserves, too, to be remarked, with respect to the lower animals, that they as well as man, express what passes in their minds by natural signs; and there is even some reason for apprehending that some of them understand instinctively certain natural signs which we employ.

If natural signs be interpreted in consequence of experience only, why are we more affected by natural signs than by artificial ones? A peasant who has never heard but one language spoken, has as much reason to associate the word love or hatred with the sentiment it denotes, as to associate these passions with their natural expressions. And yet the effects of the two species of signs are widely different. For the farther confirmation or limitation of this conclusion, it would be worth while to institute some experiment expressly, if such a case as that recorded by Cheselden should again fall under the examination of an *equally intelligent observer*.

We entirely concur with Mr. Stewart on this subject; and really see no more difficulty in believing that certain expressions of the countenance are naturally agreeable or disagreeable to the observer, independently of experience or associations, notwithstanding all that Priestly and Darwin have written to the contrary, than that some sounds are naturally pleasing and others offensive to the ear, or what is still less likely to be questioned that some tastes and smells are grateful and others disagreeable. Darwin readily admits that "children, long before they can speak, or understand the language of their parents, may be frightened by an angry countenance, or soothed by smiles and blandishments;" but he accounts for this faculty of interpreting natural signs in two ways; first, that previously having observed the effects of certain passions in themselves as, of fear or anger, they

* Hence the beauty of the word *incipe* in that exquisitely tender line of Virgil's Pollio, in which the poet, addressing himself to the unborn child, calls on him to *begin* his intercourse with the world he was about to enter, by *learning* to *know his mother by her smile*. *Incipe* parve puer, risu cognoscere matrem.

know at sight when others are under the influence of the same affections; and secondly, by putting themselves into the attitude which belongs to the particular passion they see exhibited, as they are led to do by imitation, they in some degree acquire that passion, according to a physiological connexion between such passion and its natural signs. Zoonomia Vol. I. Sect. 16. 6.

There might be some plausibility in this explanation, if the child always studied his countenance in a mirror, or had any means of knowing what were the peculiar appearances which each passion stamped on its own countenance; but as neither of these things can be alleged, and as these natural signs are understood by all children alike, at the earliest age at which they take notice of any thing, we must believe that they are taught to read this language by the same inscrutible power which formed its characters.

It would seem strange that these philosophers should deny to men some portion of a faculty which nature has given to the meanest animals. She has taught them all to know the individuals of the same species, to discriminate between the sexes, and to read those signs of desire in the season of love, which are often so slight or minute as to escape our closest observation. The mouse knows that the cat is its natural enemy when they first meet, and the cat that the mouse is its destined prey. By what process of comparison is it that every bird selects its mate from the same species? Darwin ingeniously says that the cock "feels the feathers rise round his own neck, and knows from the same sign the disposition of his adversary;" but we should like to know what means he has of perceiving a resemblance between what he *sees*, and what he *feels*; or by what rule he is able to know the individuals of the other sex. But enough of this philosophical trifling.

It is this natural language which constitutes the principal part of our skill in physiognomy; for we do not find that the skill enlarges with our experience. All mankind are in the habit of making some estimate of a person's understanding and disposition at first sight; and these judgments are made with little more readiness or accuracy, at the age of forty than twenty. Nay, very young children are commonly not far inferior to adults in this faculty of reading countenances; and they have been supposed to possess a peculiar aptitude for perceiving insanity, in its earliest indications, and its slightest shades. Without giving any opinion whether this symbolic language of nature can be referred to facts yet more elementary, and reduced to exact rules, in the way that Lavater has attempted to do, we think that his purpose is more rational and practicable than that of the Phrenologists, as his language is more copious and admits of nicer discriminations than theirs, supposing the principles of both to be equally founded in nature.

K.

DR. JOHN D. GODMAN.

We have just received, from their authors, two papers, forming part of the ninth volume of the transactions of the American Philosophical Society, and containing descriptions of the remains of extinct animals, of which we shall give an account, in our present number. We are glad to find that this curious subject continues to occupy the attention of our naturalists. There is an interest connected with high antiquity, which is felt by every one. The most worthless coin,—the most humble utensil, at once acquires value in our eyes, if we can be assured that it existed and was used in the time of the Cæsars. A corpse, which we should turn from with disgust, excites in us the greatest curiosity, when we are told that it is the embalmed body of an Egyptian who lived under the Pharaohs. How can we fail then to take an interest in those organic remains, which belong to an antiquity higher, in all probability, than our earliest traditions, and many of which must even be considered as the relics of a condition of the world entirely different from the present?

The first of these papers is by Dr. Isaac Hays, a gentleman well known for the zeal and success with which he cultivates the medical and natural sciences. The second is by our lamented friend, the late Dr. John D. Godman. It was his last contribution to the sciences. The copies which he sent us, seemed to have inscribed upon them the words used by the unhappy gladiators; *Morituri vos salutat.* We regret that no biographical notice of this extraordinary man has yet made its

appearance, for, from our personal acquaintance with him, we are sure that his life, short as it was, would be instructive. He was born, we believe, in Maryland; we know, at least, that he passed his youth in Baltimore, and that, like Franklin, he began his career as a printer. The ardent love of knowledge, which was his ruling passion, would not permit him, however, to continue in this mechanical occupation, and he determined to study medicine, in spite of every disadvantage from the most straitened circumstances. He did not fail to be immediately distinguished for his assiduity and talents, and was soon appointed assistant to the anatomical professor in the Baltimore school.

From Baltimore, he removed to Philadelphia, and met with great success as a private teacher of anatomy. His method was peculiar, and probably new as a formal system of instruction in that science. It was strictly analytical. The dissections were performed in the presence of the class, and the parts were described as they were successively developed by the knife. The ordinary mode is, in our opinion, better suited for instruction; but it is often important to the student to have the same subject presented to him in different points of view, and that employed by Godman had many advantages, and especially in its immediate application to surgery. We have frequently heard him lecture, and can bear testimony to his great skill, his correct and happy elocution, and above all to that unacquired art which enabled him to give interest even to the driest details, and to communicate to his class a portion of his own enthusiasm. A new medical school having been established in Cincinnati, Ohio, Dr. Godman received an appointment to one of the chairs, and was induced to accept it. But even the united talents of Godman and his distinguished colleague Dr. Drake, could not give success to this premature establishment, and Godman again returned to Philadelphia. He now, besides resuming his former occupation, gave lectures on natural history at the Franklin Institute, and was always able to command a crowded and admiring auditory. In Philadelphia he had numerous and sincere friends, attached to him still more by his amiable manners, than by his fine understanding; and when he came from Cincinnati, he considered that he had returned to his proper home, and was determined never to leave it. Unfortunately he was not permitted to persevere in this resolution. He received an appointment to the chair of Anatomy in the Rutgers Medical College of New-York, and the prospects held out to him were so flattering, that he consented once more to change his residence. To this unhappy resolution we have probably to ascribe his early loss. The climate of New-York is known to be peculiarly fatal in pulmonary complaints, to which our friend had some predisposition; and, before his second course of lectures was completed, he found himself laboring under that incurable disease, from which all the skill of physic has not been able to erase the characters of despair. To satisfy the anxiety of his family, he went to the West Indies; but he soon found that his complaint was beyond the reach of climate, as well as of medicine, and he determined to return to Philadelphia, where his last days might receive the consolations of friendship and affection. He was right in this determination. We have often been struck with the cruelty of advising a foreign residence for desperate diseases, and with the folly of consenting to it. It is better to resign the feeble hopes of recovery that may be thus held out to us, than to run the risk of dying among strange faces and unfeeling hearts. To Godman, every attention that kindness could suggest, was fully extended, and his days were prolonged far beyond the period to which the most sanguine hopes had limited them. He was advised to live at Germantown, a village near the city, where, among other advantages, he had the benefit of engaging the constant care, the active and untiring benevolence of his friend Mr. Reuben Haines,—a gentleman distinguished for all the best qualities of the heart.

Dr. Godman was not a man to brood over his misfortunes in idle melancholy. His love of life was not permitted to extinguish his love of science, and his literary labours were continued up to the day of his death. He has published an interesting work on Natural History, in three volumes octavo; a collection of Introductory Lectures, full of talent and eloquence; and a work on Myology, with coloured plates, and according to a new plan. This last book we have not seen, but we

have the higher expectations from it, as it is in his proper department, on a subject which he long taught, and with which he was thoroughly acquainted.

Dr. Godman was married to a daughter of one of our best artists,—Mr. Rembrandt Peale. He has left several children. He died at the early age of thirty-two; and his premature loss is universally and deeply deplored.

P.

NEW FOSSIL ANIMALS,

Described in the last volume of the Transactions of the American Philosophical Society.

We have already mentioned these descriptions, in our notice of Dr. Godman. The first is by Dr. Isaac Hays, and is devoted to a singular animal, of which a fragment only has been found, consisting of a portion of the head and lower jaw. It was discovered in a marle pit, on Pensauken creek, in New Jersey, and is in the possession of Mr. Isaac Lea of Philadelphia. "The marle in which it was found is of that description called fine green marle. The stratum is about ten feet thick, and commences about two feet from the surface. It contains marine shells, (principally Terebratulæ,) Shark's teeth, &c."

Notwithstanding some resemblance in the head, the author thinks that this animal cannot belong to the great Saurian family, (*Lacerta of Linnæus,*) because "in all that family, except the crocodile and the Saurian of Luneville discovered by Dr. Gaillardeau, the teeth are not lodged in alveoli, or even in a continuous furrow; on the contrary the jaw bone presents only a sort of parapet on the outer side—the teeth are fixed to the jaw by a bony mass, occupying the place of their root, and incorporated organically both with the tooth and with the jaw bone—and the new teeth make their first appearance in cells from within this osseous mass, and shoot irregularly through its substance, gradually producing a necrosis in it, thus causing both the mass and the old tooth to fall out.

"This animal differs from the crocodile in the composition of its jaw, in the form and position of its teeth, in the mode in which the nerves and blood vessels are transmitted to the teeth, &c. &c. It differs from the Saurian of the environs of Luneville in the form and character of the teeth, which in the latter are conical, strongly striated, and alternately larger and smaller—also in the mode in which the blood vessels are transmitted to the teeth, &c.

"It most probably belongs to the order *Enalio Sauri* of Conybeare; an order formed for certain animals which approaching more closely to the Saurian or Lizard family, and especially to the genus Crocodile, than to any other recent type, yet recede from it in many important characters, especially in the form of their paddles, which possess an intermediate structure between the feet of quadrupeds and the fins of fishes.*

"It is impossible, however, to place the animal which forms the subject of this communication in any of the hitherto described genera of this order. It is excluded from the genus *Ichthyosaurus* by the composition of its jaw; by the teeth in the latter being placed in a sulcus and not in distinct alveoli, and also by the nerves and blood vessels being transmitted to the teeth of the lower jaw by perforations on the *outside* of the anterior portion of the dental bone, &c. It differs from the *Plesiosaurus* in the form and relative size of the intermaxillary and upper maxillary bones—in the form of the lower jaw—form of the teeth—mode in which they close—and manner in which the lower maxillary nerve is transmitted to the teeth, which, in the Plesiosaurus, is by foramina dispersed irregularly along the outer edge of the lower jaw."

The author then compares his animal with the *Saurocephalus*, a genus founded by Dr. Richard Harlan, on a single dental bone, discovered in a cavern on the river Missouri, near Soldier's river, by Sergeant Gass, who accompanied Lewis and Clark in their expedition, and presented by the latter gentleman to the Philosophical Society. In the description given by Dr. Harlan, the teeth of the Saurocephalus are said to be "fixed in a longitudinal groove in close contact throughout, there being no distinct alveoli." Such a character would have formed a generic distinction in the

* See Geological Transactions, Vol. I. N. S. p. 561.

two animals. But a careful examination of the specimen in the Society's cabinet, showed that Dr. Harlan had been deceived, and that the teeth were in fact placed in distinct alveoli. Hence Dr. Hays has thought himself justified in bringing the two animals under the same genus, which he has established as follows:

"Genus *Saurodon* (*Hays.*) Teeth of the lower jaw closing within those of the upper, like incisors; a regular series of foramina along the inner aspect of the jaws near their alveolar margins, for the passage of nerves and blood vessels to the teeth.

Species 1. *S. lanciformis.* A groove along the inner surface of the dental bone for the accommodation of the inferior maxillary nerve; teeth very obtusely lanciform.

Species 2. *S. Leanus.* Teeth acutely lanciform, much smaller than in the preceding species, slightly curved."

The paper is accompanied by engravings, and a minute description.

The second communication is from Dr. Godman, and relates to a remarkable animal, nearly allied to the mammoth, (Mastodon.) We take a particular interest in it from the circumstance, that of the three only specimens now known, two belong to the Museum of our University. Descriptions and drawings of them, were furnished to the author, by professor Dunglison.

"The bones examined by the author himself, were, disinterred a short time since, by Mr. Archibald Crawford, about twelve miles from Newburg, in Orange county, New York; a region deservedly celebrated for its inestimable contribution to natural history in the splendid skeleton of the gigantic Mastodon, which was thence obtained in 1801 by the indefatigable founder of the Philadelphia Museum.

"The bones obtained by Mr. Crawford are in a good state of preservation, and comprise the following parts of the skeleton:—

"The anterior part of the head; consisting of parts of the frontal, intermaxillary, superior maxillary and two-thirds of the lower jaw bones; the tusks and sixteen teeth. Of the posterior part of the head there is but a small fragment, being a piece of the occipital bone, distinguished by the presence of nearly one condyle, and showing a small part of the circle of the foramen magnum.

"Of the bones of the trunk and extremities, there are four vertebræ, and one separate spinous process; two ribs, of which one is whole and the other broken and imperfect; a humerus, radius, ulna, and two digital phalanges; a femur, tibia, and five epiphyses or heads of bones, separated from their shafts, which, with other circumstances, show that the animal had not attained its adult age."

A great peculiarity, which separates this animal from every genus hitherto established, is presented in the lower jaw, the elongated or rostrated extremity of which contains the alveolar processes or sockets for two very remarkable tusks. These sockets are nearly an inch in diameter at their outlet; the right one being three, and the left two inches in depth, gradually diverging from the centre, and decreasing in width as they penetrate the bone.

"The tusks belonging to these sockets are of a very striking appearance, and that of the right side, which is entire and well preserved, is four inches in length, three inches of which are within the socket. The projecting external part is covered by a shining, hard, black enamel, and is smooth and round at its point; the other part appears to be a dark, grayish, bony matter, dry on the surface, yielding to the pressure of the nail. The part of this tusk within the socket is exactly accommodated thereto, tapering to a small point. The external projecting part has a peculiar spiral twist for about an inch and a half from its anterior extremity."

"In the collection examined by Professor Dunglison there are two parts of lower jaws, most probably belonging to the same species, though to individuals of different ages. These have been clumsily joined as if they had formed a single jaw. The right side of the jaw is complete from the angle to the apex of the chin, which is perfect, having about three inches of the left side preserved. The lower jaw is elongated at its anterior part, and hollowed out superiorly, while on each side of the symphisis menti there is a canal extending obliquely upwards through the bone, the right one contains the root of a tusk, which occupies the whole socket, and projects slightly on the inner side, being an inch

and a quarter in diameter. This right portion of the lower jaw is two feet four inches long, measured along its base, and weighs forty pounds.*

"Every view taken of this animal strongly reminds us of its resemblance to the gigantic Mastodon; and but for the singular difference of organization presented by the lower jaw and its tusks, we could not avoid concluding we had obtained a young animal of that species. We have made diligent examination of the different perfect lower jaws of the Mastodon preserved in the cabinets of the Philadelphia and Baltimore Museums, the cabinet of the New York Lyceum, &c. to discover whether any trace of this structure could be found, or had possibly been overlooked by previous observers.

"These researches ended in a conviction that nothing like this construction pertained to the Mastodon, whose lower jaw ends in a distinctly decurved extremity, simply suited to give attachment to the muscles of a lip.

"We are therefore under the necessity of regarding it as a *new*, but closely allied *genus* to the Mastodon; and propose for it the following name and characters:—

ORDER BELLUÆ, L. (PACHYDERMATA, C.)

FAMILY PROBOSCIDIA.

Genus Tetracaulodon.† (GODMAN.)

Character: having four tusks; of which two, large and strong, similar to those of the Mastodon, belong to the upper jaw, and two, small, short and spiral, project from sockets on each side of the chin. The lower jaw produced or elongated at the symphisis; having on its superior surface a smooth hollow groove for the tongue and terminating in a narrow apex containing sockets for the inferior tusks.

Species 1. *T. Mastodontoideum.* GODM.

"Of this highly interesting species, we are now aware of the preservation of fragments of *three* well authenticated individuals. Two adult jaw bones (one of which is nearly two thirds entire) in the Museum of the University of Virginia; the young specimen, the immediate subject of this description, belonging to the beautiful Museum of R. Peale of New York; of a fourth we have heard, as being in possession of a distinguished scientific gentleman of that city, though of this we can affirm nothing positively. It is highly probable that other specimens have been raised by those engaged in canalling &c. that have been laid aside as Mastodon bones, which they so closely resemble.*

"In regard to the relative position of the animal in the class Mammalia, we are led by the form of the lower jaw and tusks to believe that it should stand between the genera Mastodon and Hippopotamus; being allied to the former by the general character of the teeth and skeleton, and to the latter especially, by the inferior tusks, as well as the form of the molar teeth. The same circumstances would cause us to conclude that the regimen of our animal might have been of a mixed character, or that like the Hippotamus this genus was somewhat aquatic and fed upon the productions found in rivers, lakes, or marshes. However this may be decided, the proofs of the former existence of the genus are unequivocal, and will no doubt be multiplied if proper attention be paid to the explorations making throughout our own country."

* The lower jaw bone of the Mastodon is two feet ten inches long, and weighs sixty pounds; hence our animal, in the adult state, was of about the same size.

† From τετρα, four; Χαυλιοδοντα, tusks.

* Since this paper was in type we have learned with much pleasure that a second exploration made by Mr. Crawford has been very productive and there is reason to hope that Mr. Rubens Peale will be enabled thereby to mount an entire skeleton of the Tetracaulodon Mastodontoideum.

ON LORD BYRON.

Cold is the heart and mute the tongue
That keenly felt and sweetly sung;
That spirit high which us'd to soar
To its own native seats among
Angels and Gods: e'en while it wore
An earthly clog, aside hath flung
The only bar that stood between
Itself and what it should have been.
O'er brightest sun that ever rose
Darkness and storms and clouds may close,
But the intense and scorching blaze
Which could the noxious vapours raise
Can scatter them; e'en so with him
Though deadly malice could bedim

The lustre of his matchless fame,
Justice and truth their order claim,
And what say they? That Seraphs err'd
And were condemn'd but not unheard;
That men however good or great
Are not, alas! immaculate:
They bid us mourn a mind sublime
Which spurn'd the bounds of place and time;
They bid us mourn the mightiest soul
That e'er was link'd to clay's control,
Which scorn'd alike the servile crowd
And idols base to whom it bow'd:
They bid us mourn exalted worth
Which seem'd to own a heavenly birth;
For all have shar'd one common doom
Andsleep interr'd in Byron's tomb.

C.C.T.

ROADS.

One of the good effects anticipated from a change in the constitution of Virginia, was an improvement in the system of public roads, as by a more equal representation, there would be an accession of weight in the legislature to those parts of the state in which good roads are at once most rare and most useful, and which would of course feel a greater interest in providing a good system of road laws.—In the tide water district, and for some distance above it, where the country is level and sandy, the roads are pretty good —often excellent—without the aid of human labour. That part of the state has therefore generally been opposed to any change in the present road law, inadequate as it is to its purpose in three fourths of the state, and unjust and aristocratical as it is in all. If a man has no slave and is of course compelled to work for himself, he is required to work also on the public road, but if he has two slaves to work for him, he is thereby exempted from contributing his own labours or his money in its stead. And generally speaking, the duty is evaded by the poor man and the rich slaveowner. It is to be hoped that a better state of things awaits us on this very important matter in the public economy. Believing this, we invite the attention of our readers to the report of a committee of the house of Delegates in January 1817. The plan therein proposed was digested and prepared on the information and suggestion of those who were on this subject practical and experienced men. It was lost by a small majority.

It may be here remarked that this report seems to admit the power of the general government to make the roads leading from one state to another, because the Cumberland road had then been sanctioned by Virginia, and the constitutional question had not received the consideration which has since been bestowed on it. There were no doubt several of the committee who then agreed to this report, but who now believe that not only congress has no power to contruct roads, but that if it had the power its exercise to the extent contended for, would do more to destroy the proper equipoise between the General Government and the States than all the other controverted powers put together. The report is in these words—

"The Committee of Roads and Internal Navigation, having taken the state of the Public Roads and highways into consideration, beg leave to report:

That the neglected state of our highways and public roads, operates as a most burthensome tax on the agriculture and commerce of the country; affords matter of just reproach to its public policy; and calls aloud for Legislative interposition.

The present road laws of this Commonwealth, are believed by your Committee, to be inadequate to their purpose, from this cause if from no other; that they do not provide for their own execution. Ample powers are given to the Surveyors of roads to command the active labour of the country; penalties are imposed both on them and the citizens for violation of duty; and these penalties are recoverable by an easy and summary remedy. But with these salutary provisions, they still remain unexecuted. There is, perhaps, not a single surveyor of a road in the Commonwealth, who punctually complies with the requisites of the law, and by most of them, their duties are most flagrantly neglected. They fail to call forth the whole number of labourers assigned to them. They often permit roads to be turned or obstructed with impunity; and the best of them aim at

nothing more than to make the roads passable, and never attempt a plan of lasting improvement, or of gradual melioration. In consequence of this general failure of duty, the expense of transportation to market by land, is believed to be greater in Virginia, than in any of our sister States.

Although water carriage is far cheaper for any given distance, than carriage by land, yet, when it was considered how much greater is the number of roads, than can be that of navigable rivers and canals, and that the commodities transported by these, have been previously conveyed by roads, it seems probable, that the improvement of the highways of a country is as important an object to the statesman and economist, as that of its water carriage; and the smaller difference between good roads and bad roads, may, by their superior number, save more labour in the aggregate, than the greater difference between land and water carriage. Thus, if we suppose one mile of water carriage to cost no more than four of land carriage, (which is the ordinary estimate,) but that there are twenty miles of road for one of navigation, (and the difference is probably still greater,) and if we also suppose by a general improvement of our roads, the expense of transportation to be diminished one fifth, then the saving of labour and the value of the improvement is in both cases equal.

This comparison is made, not to undervalue the indisputable advantages of inland navigation, but to shew the importance of an improvement, which we seem hitherto not sufficiently to have appreciated.

Your Committee are aware, that the present sparse population of Virginia, is not equal to the cost of the best roads, and that perhaps no system is likely to secure this benefit at as little expense, as that of turnpikes, by which the public accomodation rests upon the sure basis of individual interest. But until a denser state of population is attained, your committee think, that with our present public resources most of our roads are susceptible of an improvement which will repay the cost in a tenfold proportion. They think too, that a foundation may now be laid for a system which may not only accord with the present circumstances of the country, but which will readily adapt itself to our progressive increase in wealth and population, and occasionally admit those artificial roads, which particular situations may justify.

Our present system of road laws, operates as an unequal and oppressive tax; and exempting those who are the owners of two male slaves it bears hardest on the poorest classes. It in practice too, favours the idle and disobedient at the expense of the loyal and industrious part of the community. It bears, also, unequally on different parts of the country, as from accidental diversities of soil or surface some roads require more frequent and expensive repairs than others; they consequently are either oppressively burthersome to the citizens of the vicinity, who are legally bound to repair them, or they are suffered to remain unrepaired.

To provide means for the construction and repair of roads, which will bear more equally on the citizen, and be better adapted to the very different degrees of expense, which different situations require, your committee recommend that all the public roads of this commonwealth be distributed into four classes. The first class, to comprehend those inferior roads which intersect small districts, and to the repairs of which, the labourers of the vicinage may be sufficient. The second class to comprehend those parts of the preceding, which from extraordinary local difficulties may require the aid of the whole country the cost of which may be defrayed out of the county levy. The third class, to comprehend highways of greater magnitude which lead to our principal market towns, and which the fund for internal improvement should aid in repairing, whenever it was not found expedient to establish turnpikes. The fourth and last class, to comprehend those, which facilitating the commerce and intercourse between different States may be deemed objects of national concern, and on which we may soon expect to see the ample resources of the general government bestowed.

To give efficacy to this system, your committee beg leave to recommend:

1. That the powers and responsibility of surveyors of public roads be somewhat augmented, and that they be stimulated to a faithful discharge of the important duties assigned them, by additional bounties as well as additional penalties.

2. That a superintendant be appointed

over the several surveyors of larger districts, who may be selected for his practical skill in the construction of roads; whose duty it shall be to enforce the execution of the road laws, and to report at stated times to the Courts and the Board of Public Works, the existing condition of the roads, and recommend improvements.

3. To give the Superior Courts of law concurrent jurisdiction with the County Courts, in all offences against the road laws.

Your committee do not venture to expect that the preceding plan will at once transform our bad roads into good ones. This change must be the slow effect of time. Some years must elapse before the requisite portion of labour can be spared from our present thin population, and before our citizens can learn from experience that no labour bestowed on their individual concerns, will remunerate them so well as that which is judiciously expended on the public roads. But your committee believe that the system they recommend, is calculated to teach this salutary lesson, without requiring from our citizens, too sudden a transition from the habits to which they have been long accustomed. And they confidently hope, that it will lay a solid foundation for a species of improvement, which so emphatically marks the progress of civilization, and contributes so largely to private comfort and to national wealth, strength and safety.

JEFFERSONIANA, No. 6.

EARLY HISTORY OF CAROLINA, MARYLAND &c.

The bounds of Carolina are expressed in these words in the first Charter of Charles II. to the Duke of Clarendon, Duke of Albemarle, Lord Craven, Lord Berkeley, Lord Ashley, Sir George Carteret, Sir William Berkeley and Sir John Colleton, dated 1662 March 24—1663 April 4. "All that territory or tract of ground scituate, lying and being within our dominions in America, extending from the north end of the island called Lucke island, which lyeth in the southern Virginia seas, and within six and thirty degrees of the northern latitude; and to the west as far as the south seas, and so southerly, as far as the river Saint Matthias which bordereth upon the coast of Florida, and within one and thirty degrees of northern latitude, and so west in a direct line as far as the south seas aforesaid; together with all &c." 4. Memoires de l'Amerique 556. The second charter to the same proprietors dated 1665 June 13—24 recites that "at the request of the said grantees and as a further mark of the king's especial favor, and in favour to the pious and noble purpose of the said grantees the king is graciously pleased to enlarge the said grant to them according to the bounds therein after specified, to wit, "all that province territory, or tract of ground, scituate, lying and being within our dominions of America aforesaid, extending north and eastward, as far as the north end of Carahtuke river, or Gulet, upon a streight westerly line, to Wyonoake creek, which lyes within, or about the degrees of thirty-six, and thirty minutes northern latitude, and so west, in a direct line as far as the south seas; and south and westward, as far as the degrees of twenty-nine inclusive northern latitude, and so west in a direct line, as far as the south seas; together with &c." 4. mem. de l' Amer 587.

The charter to Georgia dated 1732, June 9—20 granted by George II. recites that many of his subjects were poor through want of employ, and would be glad to settle in America, that south Carolina had been ravaged by the Indians in the late war and in case of a new war would be exposed to the like calamities, as their whole southern frontier was unsettled, which might be prevented if a regular colony was settled in the southern territories of Carolina; it then proceeds to erect certain trustees for 21 years into a corporation to receive charitable contributions for the support of the said colony and in general to conduct and manage the settlement and government, and proceeds to "grant to the said corporation and their successors, the reservation limitation and declaration hereafter expressed, seven undivided parts, (the whole in

in eight parts to be divided) of all those lands, countries and territories, scituate, lying and being, in that part of South Carolina, in America, which lies from the most northern part of a stream or river there, commonly called the Savannah, all along the sea-coast to the southward, unto the most southern stream of a certain other great water or river, called the Alatamaha, and westerly from the heads of the said rivers respectively in direct lines to the south seas; and all that share, circuit and precinct of land, within the said boundaries, with the islands on the sea lying opposite to the eastern coast of the islands, within twenty leagues of the same, which are not inhabited already, or settled by any authority derived from the crown of Great Britain, together with all &c." 4. Mem. del'Amerique 634.

The charter for Maryland is " to Cecilius Calvert, Baron of Baltemore in Ireland" dated 8. Car. 1. June 20, and describes the boundaries in the following words. " All that part of a peninsula lying in the parts of America between the ocean on the east and the bay of Chesapeak on the west divided from the other part thereof by a right line drawn from the promontory or cape of land called Watkins point (scituate in the aforesaid bay near the river Wigheo) on the West, unto the main ocean on the east, and between that bound on the south unto the part of Delaware bay on the north which lieth under the fortieth degree of northerly latitude from the equinoctial where New England ends; and all the tract of land between the bounds aforesaid, that is to say, passing from the aforesaid bay called Delaware bay in a right line by the degree aforesaid unto the true meridian of the first fountain of the river Puttowmack, and from thence tending toward the south unto the further bank of the aforesaid river and following the west and south side thereof unto a certain place called Cinquack, scituate near the mouth of the said river where it falls into the bay of Cheseapeack and from thence by a streight line unto the aforesaid promontory and place called Watkin's point (so that all that tract of land divided by the line aforesaid drawn between the main ocean and Watkin's point unto the promontory called cape Charles, and all it's appurtenances do remain entirely excepted to us our heirs and successors for ever.) See act Ass. 1663. c. Pervis 119. Watkin's point decided as follows. " And whereas it hath been controverted by some ignorant ill-disposed persons, where Watkin's point the Lord Baltemore's Southermost bounds on the eastern shore is scituate; this grand assembly by the care and special enquiry of five able selected surveyors and two burgesses, and on the due examination thereof conclude the same place of Watkin's point to be the north side of Wiccacommico river on the eastern shore, and near unto and on the south side of the streight Lymbo, opposite to Potuxent river; which place according to Capt. John Smith and discoverers with him, in the year 1608 was so named, being the Lord Baltemore's bounds on the eastern shore." For Wighcocomoco, Cinquack, Wigheo and Watkin's point, see Capt. Smith's map of Virginia.

When the Dutch and Swedes were expelled from New York by the English, Admiral Penn, who, in conjunction with Venables, had conquered the island of Jamaica, being well with Charles II, obtained a promise of a grant of this country from that monarch. Upon the admiral's death, his son, the celebrated quaker, availed himself of this promise and after much court solicitation obtained the performance of it." Guthrie's geogr. gram. tit. Penn.—see 1 Burn. own ti. 219. ann. 1665, that admiral Pen obtained the favor and interest of the duke of York (afterwards Jac. 2;) by keeping secret an order he had received from the duke of York to slacken sail so as to avoid engaging the Dutch fleet. The duke was then on board the fleet and was supected of being panic struck. Penn obeyed the order and an opportunity of improving an advantage over the Dutch fleet was thereby lost.

CANALS OF THE ANTIENTS.

CANALS OF EUROPE.

(*Concluded from page* 718.)

Canals of the Padus or Po.

The mouths of the Po were similar to those of the Nile. Originally there were but two. Subsequently other channels were dug or formed naturally until the river entered the Hadriatic by seven streams. Hence the expression *septem maria*. The two original branches are said by Polybius to have been those of *Padua* or *Padusa* and *Olana* or *Volana*. The river continued its course in a single bed as far the country of the Trigaboli, where it divided into two. Vessels ascended the Olana branch to the distance of two hundred and fifty miles; of the other channels some were formed naturally, others by the hand of man. Next to that which led to Ravenna Pliny places the one called *Vatrenus*, which, according to him, had the capacity of a harbour, and by which the emperor Claudius entered as far as the city of Adria after his expedition to Great Britain. The next in importance was the *Caprasia* branch, then that of *Sagis* and lastly that of *Volana* or *Olana*. They seem to have been formed by the antient Etrurians to prevent the overflowings of a river extremely liable to inundations from the number of mountain torrents it receives in its course through Lombardy. Besides these a large canal was formed above the place of bifurcation, which was called the *Fossa Philistina* and which divided into two others that led to the sea.

The northern was called *Fossiones Philstinæ* and the more southern the *Fossa Carbonaria*. The Athesis and Togisonus, according to Pliny, joined these two canals and formed the neighbouring harbour of Brundulus, in the same manner as the two rivers Medoacus major and Medoacus minor formed, with the *Fossa Clodia*, the port Edro. The Padus communicated with all these rivers and canals through which its waters passed to the Hadriatic. There was, also, according to Cluverius, a canal called *Fossa Neroniana* which was dug from the Volana branch of the Padus as far as the Fossa Carbonaria and which was navigable from Hadrianum, now *Ariano*, as far as a village known under the name *Porto-di-goro*.

Canal of Augustus at Ravenna.

The most distinguished of all these canals, both from its author and utility, was that called *Fossa Augusti*. This canal was cut from the Padus and passed by Ravenna to the sea. It carried to Classis, the place where Augustus established a station for his fleet, the quantity of water required for its use.

D'Anville places the commencement of this canal thirteen miles north of Ravenna, extending from the Padusa branch of the Padus, as far as the sea.

Canal of Parma and Placentia.

The marshes of this watery plain extended far even into Gallia Cispadana. They were formed by the inundations of the Padus. Æmilius Scaurus drained them one hundred and fifteen years before Christ by forming navigable canals from Placentia to Parma.

Canal of Papirius.

It was the custom of the antients and especially of the Romans to build Villas on the banks of their navigable canals and sometimes towns.

When we meet, consequently, in the Itineraries with any place called *Fossæ* or *Fossa* it is probable that a canal was excavated in its neighbourhood—even although there may be now no vestiges of it. These considerations have induced M. le Blond to place in this class the place called *Fossæ Papyrianæ* in Liguria, between Luna and the grove sacred to the goddess Feronia—fifteen miles from the sea shore. This canal was probably dug with the view of draining the neighbouring plains which were then marshy as they still are.

Canals of Etruria.

In the reign of Tiberius the project

was formed of uniting the Clanis with the Arno to preserve Rome from the inundations of the Tiber into which the Clanis discharged its waters; but in consequence of the opposition of the Florentines and of the inhabitants of other municipal towns &c. the project was abandoned. The communication, however, took place subsequently, for the greater part of the waters of the Clanis, with the rivers it receives, discharge themselves into a lake or marsh called *Chiane*, whilst the rest of its waters with those of the marsh are discharged into the Arno, near Aretium, or *Arrezzo*.

Although the junction between the Clanis and Arno was objected to it must have been attended with considerable advantages to the people of Etruria, Umbria and Latium by establishing a ready communication between them. Strabo, speaking of the lakes in these districts of Italy, says that they contributed to the fertility of the soil, served for purposes of navigation, and afforded plenty of fish and wild fowl, whilst the rivers that issued from them to empty themselves into the Tiber were useful for transporting grain &c. to Rome. Such were the lake Ciminus, that of the Volsinians &c. The one near Clusium must, however, have been the most important since it established a communication between the Arno and Tiber and, consequently, between all the countries watered by those rivers.

About five miles from Rome a canal seems to have existed, called *Fossa Clœlia or Cœlia*. It was near the Appian way but for what purpose dug we know not.

The *Canal of Trajan* was made to preserve Rome from the inundations which were so fatal to it. The canal began below the Ponte Molle and passed through the fields of the Vatican, in the part which is now called *Strada della valle dell'inferno*. Pliny the younger speaks of it.

Canal of the Pomptine Marshes.

This was one of the most important works of the kind undertaken in Italy. It led from the Forum Appii through the Pomptine marshes nearly as far as Terracina, and had the double use of draining the marshes and serving for navigation. 162 years before Christ an attempt was made to drain them under the Consulate of M. Cornelius Cethegus and L. Anicius Gallus, which partly succeeded and much fertile land was reclaimed, but they soon relapsed into their former condition. Under Augustus a long canal was dug nearly parallel to the Via Appii and not far from it, which served for the draining of the marshes and also for transport. Trajan instituted other works for the purpose of draining them and Theodoric, king of the Goths, had a canal completed which was nineteen miles in length and called *Decennovium*. It subsequently became much neglected, and notwithstanding subsequent attempts to deprive them of their redundant humidity these marshes still remain the fertile sources of Malaria and destruction.

Canal of Lake Fucinus or Celano.

Cæsar had formed the project of draining the lake Fucinus in Abruzzo ulterior but his death put an end to his magnificent enterprises—(*Sueton.* in Cæsar—c 44.) The inhabitants in the vicinity of the lake strongly urged Augustus to prosecute it, but he did not fall in with their desires. Pliny (lib. 36. c. 15) informs us that the emperor Claudius undertook the work and employed 30,000 men for eleven successive years. He experienced considerable obstacles and it was necessary to cut through the mountains for upwards of a league. According to Dion his object was, not only to render the bed of the lake adapted for agriculture, but also to facilitate the navigation of the Tiber by leading into it the waters of the lake. This seems, however, impossible as there are numerous mountains between the Tiber and the lake. Dion seems here to be in error particularly as Tacitus mentions that the waters of the Fucinus were conducted into the Liris. When

the work was completed Claudius gave a magnificent fete and naval combat. Still the channel was not deep enough to drain the lowest parts and although the work was subsequently endeavoured to be completed by Nero and by Trajan —the lake Fucinus still exists.

Canal of the Lake Avernus.

Nero had a country house in the neighbourhood of this lake and as he was desirous of having an immediate and safe water communication between it and Rome he collected engineers and workmen from all parts to dig a canal of no less than one hundred and sixty Roman miles in length, but his project was futile and never accomplished.

Canals of Spain, France &c.

Although we are not aware of the precise canals which existed of old in *Spain*, we know from Strabo, that the internal navigation was flourishing and that it was carried on by Canals. Spain was a rich country to the Phœnicians and Carthagenians &c. and was much frequented by them, as well as by the Greeks and Romans at a later period, for besides its mines of gold, silver and other metals it afforded wine, wool, flax, stuffs, fine cloths, honey, wax, pitch, borax, vermillion and a multitude of other productions useful in life.

In *Gaul* the canals of which we have mention were—

The *Canal of Marius*, which was suggested by the obstructions at the mouths of the Rhone, rendering them unfit for navigation. This induced Marius to dig a canal for the purpose of facilitating the transportation of the provisions sent by sea for the use of his army.

Authors differ regarding the precise site of this canal. In travelling towards the west from the mouths of the Rhone a distance of sixteen miles the traveller came to a place called *Fossæ Marianæ*, which corresponds to the modern *Fos*. This D'Anville considers to be the entrance to the canal of Marius and through it the navigation of the Rhone seems to have been carried on for a long time.

In the reign of Nero an attempt was made by L. Vetus one of the Roman generals in Gaul to form a junction between the Saone and Moselle—in other words between the Rhone and Rhine—between the Mediterranean and the German Ocean ;—but he was prevented by the advice of the Roman governor of Belgic Gaul, who gave him reason to apprehend the jealousy of the emperor.—The *Canal of Drusus* was instituted for purposes purely military. Drusus, the father of Germanicus and brother of Tiberius dug it 12 years before the Christian era to join the Rhine to the Issel and to render it navigable as far as the southern ocean. The canal still subsists and conducts the waters of the Rhine into the Zuyderzee.

Lastly—the *Canal of Corbulo*, Fossa Corbulonis, was dug in the 47th. year of the vulgar era by Domitius Corbulo, a distinguished Roman General, to prevent the inundations which the violence of the sea frequently caused on the banks of the Meuse and of the Rhine. The canal was 23 miles long. It began at the Rhine near Leyden and proceeded in a crooked line to the Meuse opposite Gurfliet. Several authors regard this work by Corbulo as the canal which exists at present between Leyden and Maesland. The date of the formation of the last is, however, known.

Σ

CARDS.

The custom of card playing is probably Oriental, if we judge from the name *Naibi*, which cards originally bore in Italy, and from that which they have in Spain and Portugal—*Naipes*—words, which, in the oriental languages, signify prediction or divination. By the Saracens or Arabians they were probably introduced into Europe. The way in which a knowledge of these destructive agents proceeded through Europe would also seem to indicate their eastern origin, for, in the countries farthest to the

east, they were earlier used than in the more western. The oldest historical traces of the use of cards are to be found in Italy, then in Germany, France and Spain. The first cards were painted and such were those of Italy A.D, 1299. The art of card printing was invented by the Germans between 1350 and 1360. The first certain traces of card playing in France fall in the year 1361: and Charles VI, at the close of the 14th century, is said to have amused himself with them in a fit of sickness. The modern French figures are asserted to have been invented in France between 1430 and 1461.

The earliest known evidence of cardplaying in Spain is the proclamation against it made by the King of Castile, John I, in 1387; the necessity for which shews that the practice must have been, at that time, much followed.

Sir James Lindesay, who appears to have been employed in several offices about the person of James the 5th of Scotland, mentions that, in his time, about the commencement of the 16th century.

"There was na play, bot, *cartis* and dyce."

and it is mentioned as an accomplishment in the character of a Bishop.

"Bot, gif they can play at the *Cartis*"

In the year 1503, James the fourth of Scotland, at an interview with the princess Margaret in the Castle of New-Battle, finds her playing at Cards. "The Kynge came prively to the said castell, and entered within the chammer, with a small cumpany, where he founde the quene *playing at cardes*." Leland. *Collect.* Append. iii.

Cards are mentioned in a statute of Henry VII A.D. 1496 and Du Cange quotes two Greek writers who describe cardplaying as one of the games of modern Greece, before the year 1498 at least. Benedictus Abbas has preserved a very curious edict which exhibits the state of gaming in the Christian army commanded by Richard I, King of England and Philip of France, during the crusade in the year 1190. No person in the army is permitted to play at any sort of game for money, except knights and clergymen; who, in one whole day and night, shall not, each, lose more than twenty shillings; on pain of forfeiting one hundred shillings to the Archbishops of the army. The two kings may play for what they please: but their attendants not for more than 20 shillings. Otherwise they are to be whipped naked through the army for three days. *(Warton's History of English Poetry Vol.* 3) King Richard is described playing at chess, in this expedition.

"And kyng Richard stode and playe
"Att the chesse in hys galleye."

Φ

SUTTEE.

It must be gratifying to every Philanthropist to observe by the following decree of Lord William Bentick, governor geneal India, that the feelings of the natives have undergone such a revolution, regarding the barbarous practice of immolation by the widow on the tomb of her deceased husband, as to render it politic to endeavour to repress the evil by legislative enactments.

There is now every probability that this unnatural and revolting *crime*—the offspring of the most degraded superstition—will be entirely abolished.

*

A regulation for declaring the practice of Suttee, or of burning or burying alive the Widows of Hindoos, illegal, and punishable by the Criminal Courts—Passed by the Governor General in Council at Calcutta on the 4th December, 1829, corresponding with the 20th Aughun, 1236, Bengal era; the 23d Aughun, 1237, Fusly; the 21st Aughun, 1237, Willaity; the 8th Aughun, 1886, Sumbut; and the 6th Jumadee-us-Sance, 1245, Higeree.

The practice of Suttee, or of burning or burying alive the Widows of Hindoos, is revolting to the feelings of human nature, it is no where enjoined by the religion of the Hindoos as an imperative duty, on the contrary a life of purity and retirement on the part of the Widow is more especially and preferably inculcated, and by a vast majority of that people throughout India the practice is not kept up nor observed: in

some extensive districts it does not exist; in those in which it has been most frequent it is notorious that in many instances acts of atrocity have been perpetrated which have been shocking to the Hindoos themselves, and in their eyes unlawful and wicked. The measures hitherto adopted to discourage and prevent such acts have failed of success, and the Governor General in Council is deeply impressed with the conviction that the abuses in question cannot be put an end to without abolishing the practice altogether. Actuated by these considerations the Governor General in Council without intending to depart from one of the first and most important principles of the system of British Government in India, that all classes of the people be secure in the observance of their religious usages, so long as that system can be adhered to without violation of the paramount dictates of justice and humanity, has deemed it right to establish the following rules, which are hereby enacted to be in force from the time of their promulgation throughout the Territories immediately subject to the Presidency of Fort William.

II. The practice of Suttee, or of burning or burying alive the Widows of Hindoos, is hereby declared illegal, and punishable by the Criminal Courts.

III. *First.* All Zeminders, Talooqdras, or other Proprietors of Land, whether Malugzaree, or Lakheraj; all Suddur Farmers and Under-renters of Land of every description; all dependent Talooqdars; all Naibs and other local Agents; all Native Officers employed in the collection of the Revenue and Rents of Lands on the part of Government, or the Court of Wards; and all Munduls or other Head Men of Villages,—are hereby declared especially accountable for the immediate communication to the Officers of the nearest Police Station of any intended sacrifice of the nature described in the foregoing section; and any Zemindar, or other description of persons above noticed, to whom such responsibility is declared to attach, who may be convicted of wilfully neglecting or delaying to furnish the information above required, shall be liable to be fined by the Magistrate or Joint Magistrate in any sum not exceeding Two Hundred rupees and in default of payment to be confined for any period of imprisonment not exceeding Six Months.

Second. Immediately on receiving intelligence that the sacrifice declared illegal by this Regulation is likely to occur, the Police Darogah shall either repair in person to the spot, or depute his Mohurrir or Jemadar accompanied by one or more Burkendazes of the Hindoo religion, and it shall be the duty of the Police Officers to announce to the persons assembled for the performance of the Ceremony that it is illegal, and to endeavour to prevail upon them to disperse, explaining to them that, in the event of their persisting in it, they will involve themselves in a crime and become subject to punishment by the Criminal Courts. Should the parties assembled proceed in defiance of these remonstrances to carry the Ceremony into effect, it shall be the duty of the Police officers to use all lawful means in their power to prevent the sacrifice from taking place, and to apprehend the principal persons aiding and abetting the performance of it, and in the event of the Police Officers being unable to apprehend them, they shall endeavour to ascertain their names and places of abode, and shall immediately communicate the whole of the particulars to the Magistrate or Joint Magistrate for his orders.

Third. Should intelligence of a sacrifice declared illegal by this Regulation, not reach the Police Officers until after it shall have actually taken place, or should the sacrifice have been carried into effect before their arrival at the spot, they will nevertheless institute a full enquiry into the circumstances of the case, in like manner as on all other occasions of unnatural death, and report them for the information and orders of the Magistrate or Joint Magistrate to whom they may be subordinate.

IV. *First.* On the receipt of the reports required to be made by the Police Derogahs, under the provisions of the foregoing Section the Magistrate of the Jurisdiction in which the sacrifice may have taken place, shall inquire into the circumstances of the case, and shall adopt the necessary measures for bringing the parties concerned in promoting it to trial before the Court of Circuit.

Second. It is hereby declared, that after the promulgation of this Regulation, all persons convicted of aiding and abetting in the sacrifice of a Hindoo Widow; by burning or burying her alive, whether the

sacrifice be voluntary on her part or not, shall be deemed guilty of Culpable Homicide, and shall be liable to punishment by fine, or by imprisonment, or by both fine and imprisonment, at the discretion of the Court of Circuit according to the nature and circumstances of the case and the degree of guilt established against the offender; nor shall it be held to be any plea of justification that he or she was desired by the party sacrificed to assist in putting her to death.

Third. Persons committed to take their trial before the Court of Circuit for the offence above mentioned, shall be admitted to Bail or not at the discretion of the Magistrate or Joint Magistrate, subject to the general rules in force in regard to the admission of Bail.

V. It is further deemed necessary to declare, that nothing contained in this regulation shall be construed to preclude the Court of Nizamut Adawlut from passing sentence of death on persons convicted of using violence or of compulsion, or of having assisted in burning or burying alive a Hindoo Widow, while labouring under a state of intoxication, or stupefaction, or other cause impeding the exercise of her free will, when, from the aggravated nature of the offence proved against the prisoner, the Court may see no circumstances to render him or her a proper object of mercy.

LIVING SKELETON.

Not many years ago an *Anatomie vivante* was exhibited in London to the gaze of the curious and the scientific, whose weight was not more than eighty pounds. To observe all the ordinary functions carried on in perfection in a frame so extenuated excited considerable surprize and was the theme of every tongue and of every periodical at the time.

We see by the New York journals, that a still more wonderful Phenomenon is now exhibiting at Tammany Hall. His name is Calvin Edson, or as he is properly called, the living skeleton.

"This extraordinary man is 42 years old, 5 feet 2 inches high and weighs but 60 lbs. His weight was formerly 135 lbs. He has been gradually losing his flesh for the last 16 years. without any apparent disease, having enjoyed perfect health and appetite; eats, drinks and sleeps as well as any man; can walk, dance, ride on horseback &c. His bodily strength is not so much impaired but that he can lift two hundred pounds. His mental powers are not at all diminished. He was a soldier in the last war and signalized himself at the battle of Plattsburgh, since which time he has been called General Bonaparte.

He has a wife and three children, the youngest but 11 months old. He has been visited in Boston, Albany, and other places, by eminent Physicians, but none of them have accounted for his emaciated appearance. All who have seen him pronounce him the greatest human curiosity ever exhibited.

The General is fond of company and telling Yankee stories, being a real Vermonter."

The human body consists of solids and liquids in the proportion of about one of the former to ten of the latter. If a skeleton, weighing one hundred and twenty pounds, be put into an oven and dried—the solid portion remaining will not weigh more than twelve pounds. The quantity of blood circulating in the system is various in different individuals and at different times in the same individual. It is probably not less in the American Living Skeleton than 25 or 30 pounds.

Deducting the weight of the blood and of the bones from the 60 pounds there are left not more than eighteen pounds for the other fluids, contents of the intestines &c. Yet from the accounts published of this Lusus it would seem that his muscles and other organs act with considerable energy and consequently receive a sufficient supply of fluid. Θ

INVOCATION.

Queen of the skies and mistress of the air!
Thou on the nymph didst majesty bestow:
Minerva stamp'd her impress on that brow:
The spray-born goddess gave the girdle fair
Made once on Ida's mount the thund'rer's snare,
While armies battled on the plain below:
Chasten'd the huntress of the silver bow
The rich luxuriance of those beauties rare:
Aglais, Euphrosyne, Thalia came
Each o'er the maid her own enchantment threw:
Great Jove himself inspir'd the vital flame;
The gods around in eager wonder drew,
And love was heard enraptur'd to exclaim—
Henceforth my home is in those eyes of blue.

D.C.T.

University Press—James Alexander, Printer.